



Half term	TOPIC	CONTENT
1	Intro/ terminology	Introduction to the use of terminology and data analysis in Chemistry
	C1_2 Rocks and Building Materials	Limestone and its uses/ reactions in carbonates/ the 'limestone reaction cycle'/ cement and concrete/ limestone issues.
	C1_3 Metals and their uses	Extracting metals/ iron and steels/ aluminium and titanium/ extracting copper/ useful metals/ metallic issues.
	C1_4 Crude Oil and Fuels	Fuels from crude oil/ fractional distillation/ burning fuels/ cleaner fuels/ alternative fuels.
OCTOBER HALF TERM HOLIDAY		
2	C1_4 Crude Oil and Fuels continued	Fuels from crude oil/ fractional distillation/ burning fuels/ cleaner fuels/ alternative fuels.
	C1_5 Products from Oil	Cracking hydrocarbons/ making polymers from alkenes/ new and useful polymers/ plastic waste/ ethanol.
	C1_6 Plant Oils	Extracting vegetable oil/ cooking with vegetable oils/ everyday emulsions/ food issues/
CHRISTMAS HOLIDAY		
3	C1_7 Our Changing Planet	Structure of the Earth/ the restless Earth/ the Earth's atmosphere in the past/ life on Earth/ gases in the atmosphere.
	Intro/ terminology	Introduction to the use of terminology and data analysis in Physics
	P1_2 Using Energy	Forms of energy/ conservation of energy/ useful energy/ energy and efficiency.
FEBRUARY HALF TERM HOLIDAY		
4	P1_3 Electrical Energy	Electrical appliances/ electrical power/ using electrical energy/ cost-effectiveness.
	P1_4 Generating Electricity	Fuel for electricity/ energy from wind and water/ power from the sun and the Earth/ energy and the environment/ the National Grid/ energy issues.
EASTER HOLIDAYS		
5	P1_5 Waves	The nature of waves/ measuring waves/ reflection/ refraction/ diffraction/ sound/ musical sounds.
	P1_6 Electromagnetic waves	The electromagnetic spectrum/ light, infrared, microwaves and radio waves/ communications/ the expanding universe/ the Big Bang.
	C2_1 Structure and Bonding	Chemical bonding/ ionic bonding/ formulae of ionic compounds/ covalent bonding/ metals.
MAY HALF TERM HOLIDAY		
6	C2_1 Structure and Bonding continued	Chemical bonding/ ionic bonding/ formulae of ionic compounds/ covalent bonding/ metals.
	C2_2 Structure and Properties	Giant ionic structures/ simple molecules/ giant covalent structures/ giant metallic structures/ the properties of polymers/ nanoscience.
	C2_3 How Much?	The mass of atoms/ masses of atoms and moles/ percentages and formulae/ equations and calculations/ the yield of a chemical reaction/ reversible reactions/ analysing substances/ instrumental analysis.